

SUBJECT: IFS Ball Joints

CONDITION: The central steering system ball joints may not have been properly torqued or secured into the pitman arms.

APPLIES TO: This bulletin applies to IFS models 1660S3, 1800S3, 2000S3, and 20S3

CORRECTION: Inspect, and if loose, tighten per the service bulletin procedure below.

LABOR ALLOCATION: 1.0 hrs. for inspection
2.5 hrs. labor for defect on one side
4.0 hrs. labor for defect on both sides

TOOLS REQUIRED:

1. For Inspection

- a. Feeler gauge of 0.001"
- b. Small punch and hammer

2. If repair required

- a. Pliers, 30 mm socket, 1/2" torque wrench
- b. Ball joint tools 708116-02 and -05 and Loctite® 242® Threadlocker
- c. 3/4" drive torque wrench

NOTE: Suspension serial number and VIN must be on invoice, completed with information of facility that performed the service. A description of condition found and service performed each side documented. Any parts replaced must be returned using the return material authorization process. Parts removed must be returned to be paid for claim.

GENERAL INSTRUCTIONS:

Please thoroughly review entire work procedure before starting work. If there are questions and/or concerns with steps defined in this procedure, contact ReycoGranning at 765-838-0361 ext. 6

All applicable industry safety standards must be followed when performing work identified in this procedure.

INSPECTION OF BALL JOINTS INSTRUCTIONS:

1. Follow normal maintenance and safety procedures to gain access to the pitman arm
Refer to FIG. 2-1.

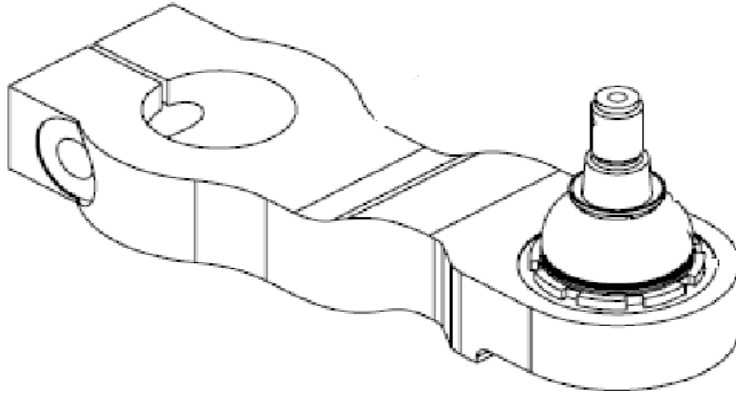


FIG. 2-1

2. Visually inspect the ball joint located in pitman arms. The ball joint shall be fully engaged with the notched flange in contact with the surface of the pitman arm. If it is not, please proceed to the repair procedure. Refer to FIG. 2-2 and 3-1. (**Images may not exactly represent your suspension**)



FIG. 2-2



FIG. 3-1

3. If the ball joint appears to be seated, using a .001" feeler gauge to check under the notched flange. If the feeler gauge slides under the flange, please proceed to the step by step instructions.
4. With a punch and hammer use moderate force in an effort to tighten the ball joint in place. If it moves proceed to the step by step instructions. If it is tight this will finish the inspection and vehicle can be returned to service.

STEP-BY-STEP INSTRUCTIONS:

NOTE: Below steps are to be used for ball joints found not seated or loose.

NOTE: Take care to not damage the sealing boot of the ball joint.

1. If a ball joint is found loose contact Mark Bachman at 765-838-0361 ext. 6 to acquire loaner tools 708116-02 and 708116-05. Credit card information required for security on tools.
2. After ball joint tools and Loctite® 242® Threadlocker are acquired disconnect the relay rod from ball joint to be addressed, per instructions from manual D710551, below.
 - a. Remove the cotter pin from the ball joint stud. Retain for re-install.
 - b. Remove the castle nut from the ball joint stud. Retain for re-install.
 - c. Disconnect the relay rod from the tapered ball joint stud using a suitable tool.
3. Back the ball joint out of casting only to a point of being 3/4" above seated position, blow off threads, apply Loctite® 242® Threadlocker to the exposed threads of ball joint.
4. Secure the pitman arm to resist torque that is to be applied. The pitman arm on master gear

can be secured by clamping the input shaft ahead of steering gear. Pitman arm on slave may require use of clamp or chain.

5. Use tools and tighten ball joint to 350 lbs. ft. with tool 708116-02 at 90 degrees angle to torque wrench. Note: that tool 708116-05 is used with castle nut to hold tool 708116-02 loosely on the ball joints.



6. If torque above is achieved and the ball joints seats in place, re-install the relay rod, tighten castle nut to 155 lbs. ft., and re-install cotter pin and properly bend pins.